RESPONSE UNDER 37 CFR 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 1651

PATENT
Attorney Docket No. 209259
Client Reference No. 200109/US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Hattori et al.

Art Unit: 1651

Application No. 09/781,703

Examiner: I. Marx

Filed: February 12, 2001

For: STABLE PQQ-DEPENDENT GLUCOSE DEHYDROGENASE COMPOSITION

AMENDMENTS TO CLAIMS
MADE IN RESPONSE TO OFFICE ACTION DATED SEPTEMBER 20, 2002

Amendments to existing claims:

3. (Twice Amended) A method for stabilizing a PQQ-dependent glucose dehydrogenase, said method comprising (a) providing a PQQ-dependent glucose dehydrogenase and (b) forming a composition comprising the PQQ-dependent glucose dehydrogenase together with (i) at least one compound selected from the group consisting of aspartic acid, glutamic acid, α-ketoglutaric acid, malic acid, α-ketogluconic acid, α-cyclodextrin and their salts and (ii) an albumin, wherein the PQQ-dependent glucose dehydrogenase content is 100 to 2000 kU per gram of the total components [calculated on a dry basis].

5. (New) The composition according to claim 1, wherein the PQQ-dependent glucose dehydrogenase content is 5 to 50 % by weight.

6. (New) The composition according to claim 1, wherein the PQQ-dependent glucose dehydrogenase is derived from genera Acinetobacter.

7. (New) The composition according to claim 1, wherein the PQQ-dependent glucose dehydrogenase is derived from Acinebacter calcoaceticus.

8. (New) The composition according to claim 1, wherein the PQQ-dependent glucose dehydrogenase is derived from Acinebacter calcoaceticus NCIMB11517.

9. (New) The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase content is 5 to 50 % by weight.

10. (New) The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase is derived from genera Acinetobacter.

11. (New) The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase is derived from Acinebacter calcoaceticus.

12. (New) The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase is derived from Acinebacter calcoaceticus NCIMB11517.

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For: STABLE PQQ-DEPENDENT GLUCOSE DEHYDROGENASE COMPOSITION

PENDING CLAIMS AFTER AMENDMENTS MADE IN RESPONSE TO OFFICE ACTION DATED SEPTEMBER 20, 2002

1. A stable lyophilized PQQ-dependent glucose dehydrogenase composition comprising a PQQ-dependent glucose dehydrogenase together with (i) at least one compound selected from the group consisting of aspartic acid, glutamic acid, α-ketoglutaric acid, malic acid, α-ketogluconic acid, α-cyclodextrin and their salts and (ii) an albumin, wherein the PQQ-dependent glucose dehydrogenase content is 100 to 2000 kU per gram of the composition.

2. The composition according to claim 1, which further contains a buffer.

3. A method for stabilizing a PQQ-dependent glucose dehydrogenase, said method comprising (a) providing a PQQ-dependent glucose dehydrogenase and (b) forming a composition comprising the PQQ-dependent glucose dehydrogenase together with (i) at least one compound selected from the group consisting of aspartic acid, glutamic acid, α-ketoglutaric acid, malic acid, α-ketogluconic acid, α-cyclodextrin and their salts and (ii) an albumin, wherein the PQQ-dependent glucose dehydrogenase content is 100 to 2000 kU per gram of the total components calculated on a dry basis.

4. The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase is present in the composition with a buffer.

5. The composition according to claim 1, wherein the PQQ-dependent glucose dehydrogenase content is 5 to 50 % by weight.

6. The composition according to claim 1, wherein the PQQ-dependent glucose dehydrogenase is derived from genera Acinetobacter.

7. The composition according to claim 1, wherein the PQQ-dependent glucose dehydrogenase is derived from Acinebacter calcoaceticus.

8. The composition according to claim 1, wherein the PQQ-dependent glucose dehydrogenase is derived from Acinebacter calcoaceticus NCIMB11517.

9. The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase content is 5 to 50 % by weight.

10. The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase is derived from genera Acinetobacter.

11. The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase is derived from Acinebacter calcoaceticus.

12. The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase is derived from Acinebacter calcoaceticus NCIMB11517.